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CENTRAL INTELLIGENCE AGENCY

PHOTOGRAPHIC INTELLIGENCE REPORT

UNIDENTIFIED-TYPE ANTENNA ARRAYS PODOLSK AND ODESSA, USSR

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PHOTOGRAPHIC INTELLIGENCE DIVISION

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UNIDENTIFIED-TYPE ANTENNA ARRAYS, PODOLSK AND ODESSA, USSR

INTRODUCTION

Unusually configured antenna arrays of an unidentified type have been noted near Podolsk and Odessa. This report presents a detailed photographic analysis of the Podolsk site, utilizing a number of KEYHOLE missions from [redacted] and includes a description of the installation and a reconstruction of its construction chronology. The Odessa site has only recently been identified and is covered more concisely; it is still under construction but appears almost identical in layout to the Podolsk installation.

For the Podolsk site, all graphic representations and mensurations are based on photography from [redacted] All measurements of this site have been made by the Technical Intelligence Division (TID) of NPIC with the exception of distances measured outside the walled area and the height of 1 tower (Figure 3, item F), which were made by the Photographic Intelligence Division (PID) of CIA. The NPIC/TID figures [redacted]

For the Odessa site, both analysis and mensuration are based on photography from [redacted] All measurements for this site have been made by CIA/PID.

Throughout this report, measurements made by CIA/PID should be considered approximate and must not be taken as official NPIC mensuration data.

PODOLSK SITE

Detailed Description

This installation is situated at 55-22N 37-27E, approximately 24 nautical miles (nm) south-southwest of Moscow and 6 nm southwest of Podolsk (Figure 1). The antenna array is within a pentagon-shaped wall that measures 780 feet on each side and is apparently of dike-shaped construction (Figures 2, 3, and 4). This walled area is served by a single road leading from the support area of a Krug site* that is situated about 1 nm north of the walled area. 25X1

The antenna array itself consists of 3 self-supporting lattice towers (Figure 3, items A, B, and C), each 130 feet high, with 14 thinner masts, also 130 feet high, uniformly spaced 65 feet apart in 2 slight arcs between the lattice towers. There is a probable base for a fourth lattice tower (item D), and a concrete pad, 90 by 70 feet, just west of the arc of masts between towers B and C. 25X1

Situated opposite the 2 arcs of masts are single lattice towers, each 100 feet high (items E and F). These towers are placed approximately on the line of the perpendicular bisector to a chord drawn connecting the end towers of the arcs, and at a distance from the arcs of slightly less than one-half their assumed radius (the calculated ratio of distances from center arc mast to single tower and to the assumed center of the circle is 46:100, or 46 percent). The purpose of Towers E and F remains undetermined; however, they probably have the capability of moving along the probable 2-rail track that runs beside the west and north walls of the site. 25X1

In the approximate center of the walled area is a 120- by 35-foot probable control building (Figure 3, item 1). The roof of this building has a raised section at its eastern end, suggesting the possibility of future bunkering with the raised section housing venti-

*Podolsk Krug DF Site Klimovsk, [redacted] 25X1

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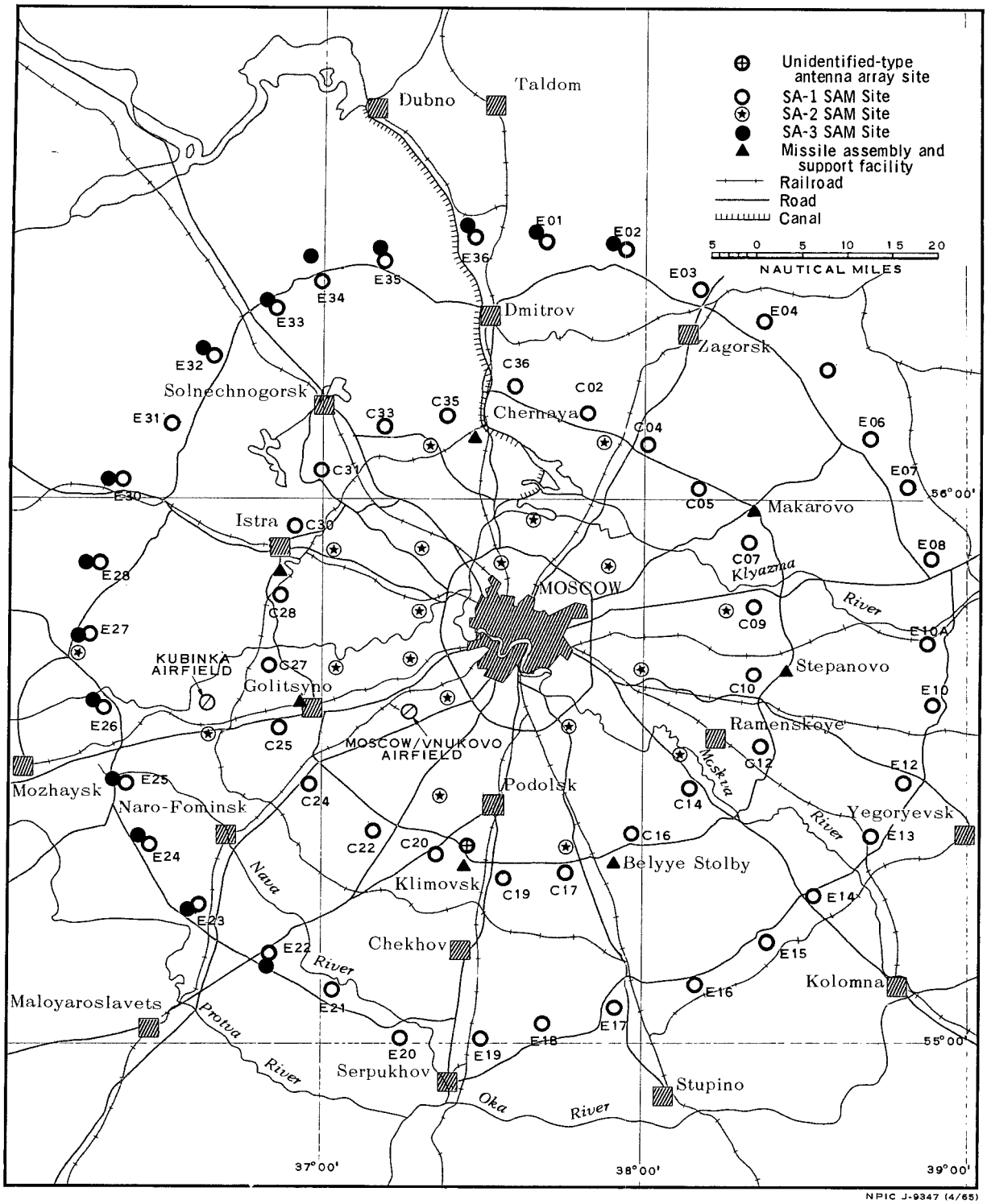

FIGURE 1. LOCATION OF PODOLSK ANTENNA ARRAY SITE.

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25X1

FIGURE 2. UNIDENTIFIED-TYPE ANTENNA ARRAY SITE AND NEARBY FACILITIES, PODOLSK.

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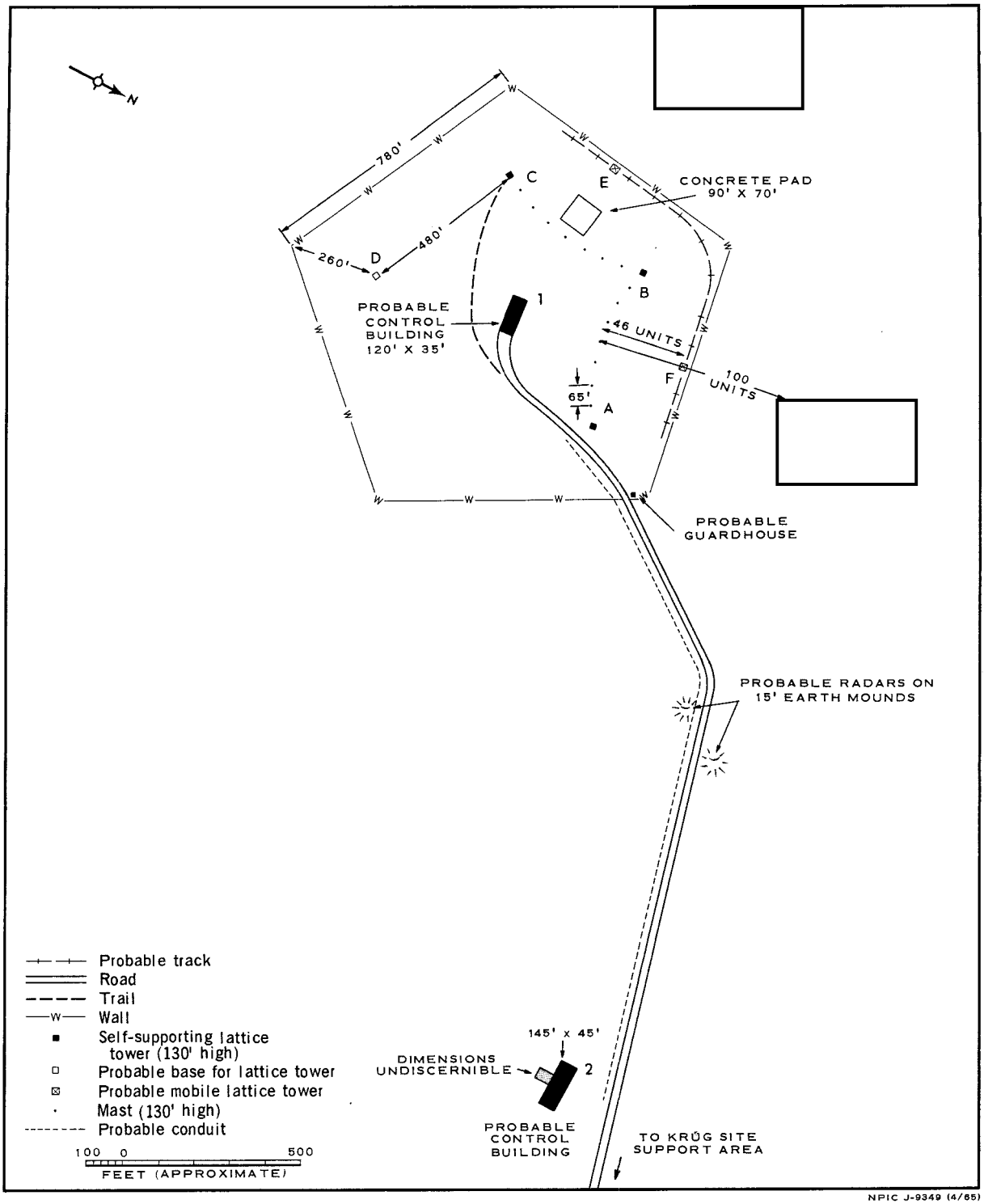

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FIGURE 3. LAYOUT OF UNIDENTIFIED-TYPE ANTENNA ARRAY SITE, PODOLSK.

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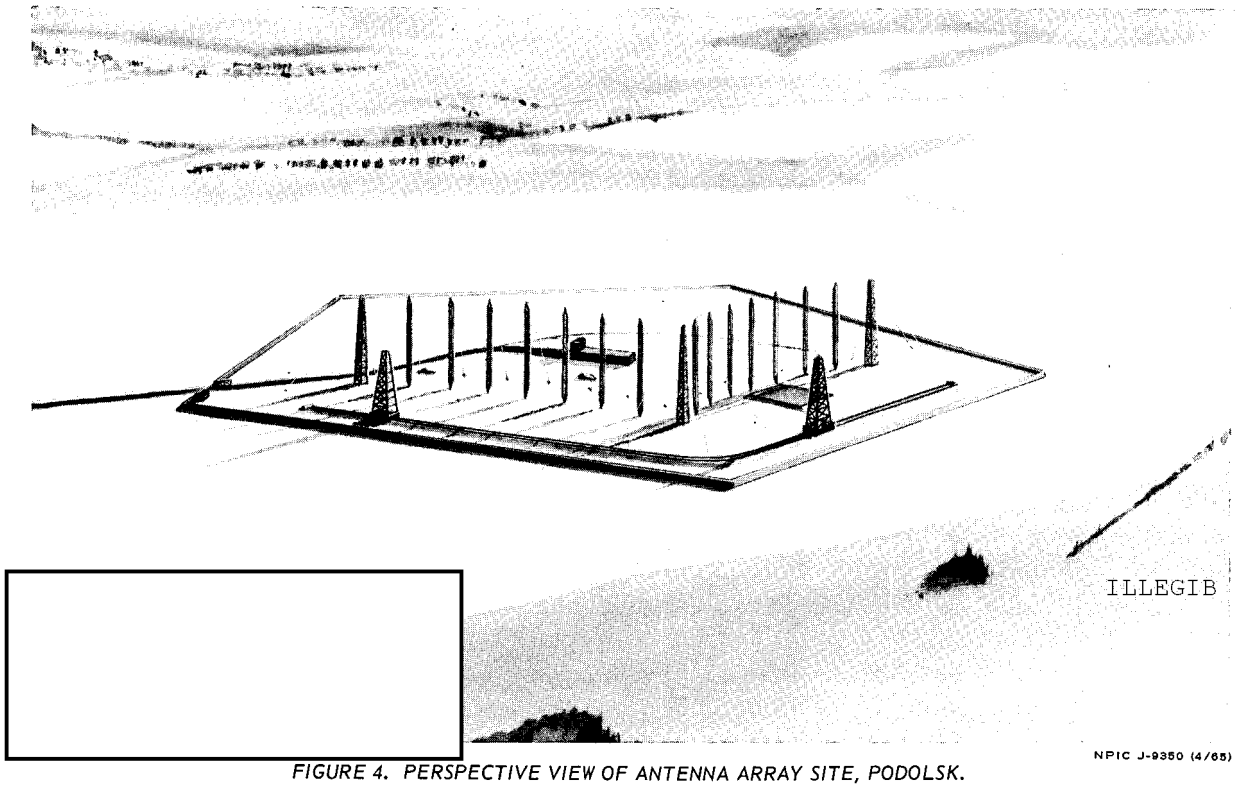

FIGURE 4. PERSPECTIVE VIEW OF ANTENNA ARRAY SITE, PODOLSK.

lation shafts. Another probable control building (item 2) is situated along the approach road approximately 1,800 feet east-northeast of the walled area. The main section of this T-shaped building measures 145 by 45 feet; the wing could not be measured because of poor building corner definition.

On each side of the road approximately 650 feet northeast of the walled area is a 15-foot earth mound supporting a probable is a radar of an unidentified type.

A probable conduit parallels the approach road, extending from the general area of Probable Control Building 2 into the walled area. However, the exact originating and terminating points of the probable conduit could not be definitely established on available photography.

No separate support area has been constructed, but the support area for the nearby Krug site is approximately 2,000 feet east-northeast of Probable Control Building 2 and is probably used for the direct support of the antenna array site.

Chronological Development

The antenna array site can be negated on photography of [redacted] It 25X1
was first noted on photography of [redacted] 25X1
[redacted] at which time some ground scarring was 25X1
discernible at the site but further interpretation was precluded by haze and poor image quality. Probable Control Building 2 was present at this time and appeared to be complete. In [redacted] Probable Control Building 1 was 25X1
first noted, apparently in an early-to-middle stage of construction.

On photography of [redacted] the three 25X1
130-foot self-supporting lattice towers, A, B, and C, appeared to be either complete or in a late stage of construction. The probable base

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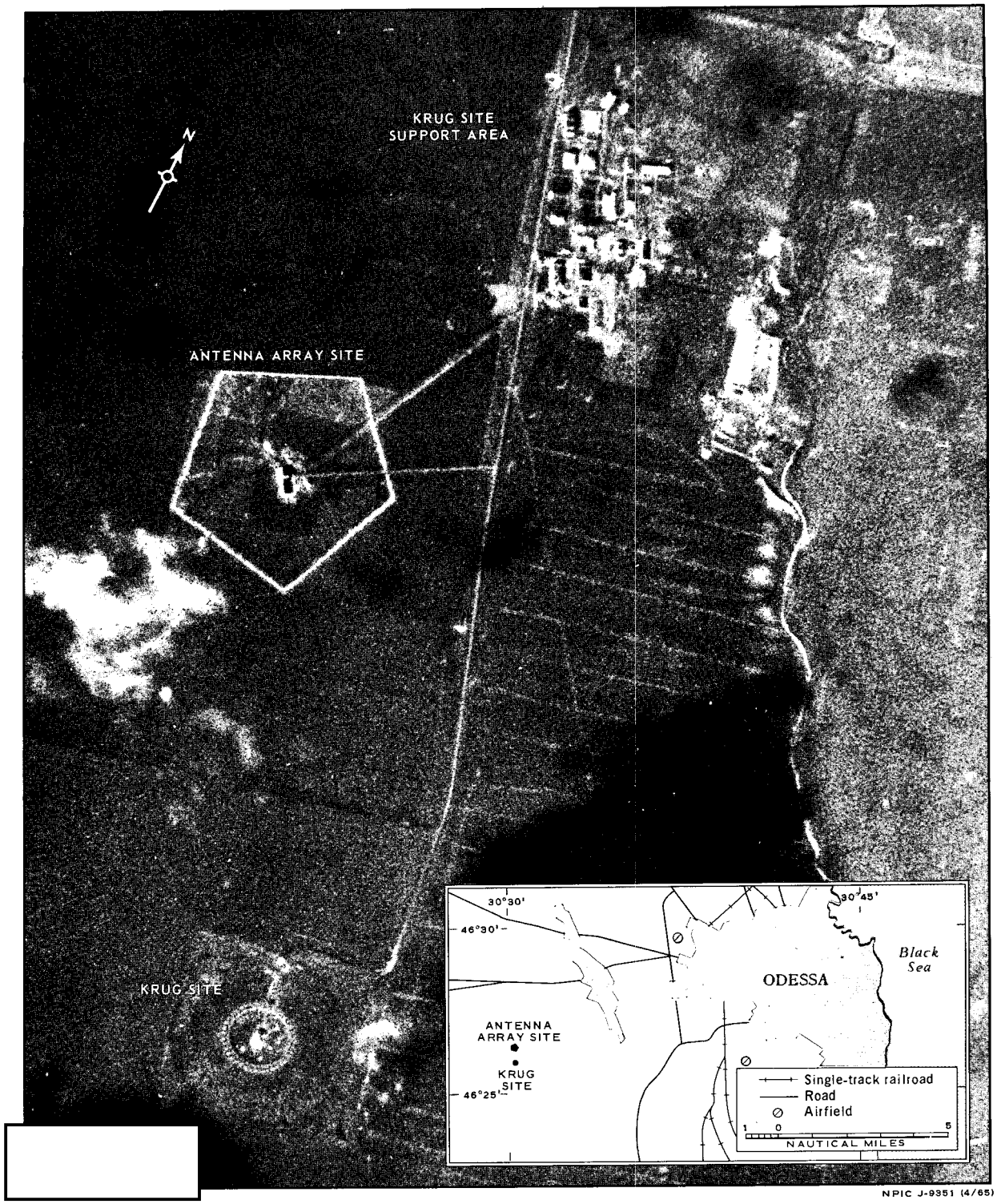

25X1

FIGURE 5. UNIDENTIFIED-TYPE ANTENNA ARRAY SITE AND NEARBY FACILITIES, ODESSA.

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and footings for the fourth lattice tower were also noted. Probable Control Building 1 appeared to be complete, and the pentagon-shaped wall was complete on 3 sides with construction in progress on the remaining 2 sides. At least 7 of the 14 thinner, 130-foot masts could be seen lying on the ground, uniformly spaced and apparently in position to be placed upright.

No significant changes were apparent on photography of [redacted] but the probable radar appeared to be in place on top of the mound nearest to the walled area.

The site was next seen on photography of [redacted] which forms the basis for the detailed description contained in this report.

The latest photography, that of [redacted] was poor in quality but did confirm the presence of the second 100-foot, probably mobile tower, F.

ODESSA SITE

This installation (Figure 5) is situated at 46-27N 30-30E, approximately 2,300 feet north of Odessa Krug DF Site No 1 [redacted] 25X1 [redacted] and about 8 nm west of Odessa. 25X1 The site appears to be almost identical in layout to the Podolsk installation but construction is in an early stage and no antenna components are present at this time. 25X1 The pentagon-shaped wall, also apparently still under construction, measures approximately 765 feet per side. A probable control building in the center of the walled area appears to be complete on the exterior; as at Podolsk, the roof of this building has a raised section. 25X1 25X1

REFERENCES

[redacted] 25X1

MAPS OR CHARTS

DIA. US Air Target Chart, Series 200, Sheet 0167-5HL, 2d ed, Apr 63, scale 1:200,000 (SECRET)

SAC. US Air Target Chart, Series 200, Sheet 0250-8HL, 3d ed, Sep 62, scale 1:200,000 (SECRET)

REQUIREMENT

CIA. C-SI5-82,213

PROJECT

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